

The opinion in support of the decision being
entered today is not binding precedent of the Board.

Paper 20

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JEROLD C. ROSENFELD,
SERGIO R. ROJSTACZER and JOHN A. TYRELL

Appeal 1997-2572
Application 08/220,562¹

Before: WINTERS, Administrative Patent Judge, and McKELVEY,
Senior Administrative Patent Judge, SCHAFER, Administrative
Patent Judge.

McKELVEY, Senior Administrative Patent Judge.

MEMORANDUM OPINION and ORDER
Decision on appeal under 35 U.S.C. § 134

The appeal is from a decision of the Primary Examiner
apparently intending to reject claims 1-22. We reverse.

¹ Application for patent filed 31 March 1994. The real party in interest is
Occidental Chemical Corporation.

A. Findings of fact

The record supports the following findings by a preponderance of the evidence.

The claims

1. The claims on appeal are claims 1-22.
2. Claim 1 reads as follows (certain indentation, matter in bold and matter in brackets added):

A solution **consisting essentially of**[:]

(I) an organic solvent; [and]

(II) a polyamic acid **consisting essentially of** the reaction product of[:]

(A) a dianhydride selected from the group **consisting of**[:]

[1] 3,3',4,4'-biphenyltetracarboxylic dianhydride [**BPDA**],

[2] bis(3,4-dicarboxyphenyl)ether dianhydride [**ODPA**], and

[3] mixtures thereof; and

(B) total diamine in a molar ratio with said dianhydride of about 1:2 to about 2:1, where said total diamine **consists essentially of**[:]

(1) about 1 to about 30 mole %, based on total diamine, of a siloxane-containing diamine and

(2) about 70 to about 99 mole %, based on total diamine, of a mixture of at least two diamines selected from the group **consisting of**[:]

(a) about 10 to about 90 mole %, based on said mixture, of 2,2-bis(4[4-aminophenoxy]phenyl)propane [**BAPP**];

(b) about 10 to about 80 mole %, based on said mixture of 2,2'-bis(4-aminophenyl)-1,4-diisopropylbenzene [**BAP**];

(c) about 10 to about 90 mole %, based on said mixture, of 3,3'-diamino-phenylsulfone [**APS**]; and

(d) about 10 to about 90 mole %, based on said mixture, of 1,3-bis(3-aminophenoxy)benzene [**APB**].

Examiner's Rejections

3. In the Examiner's Answer (Paper 16), the examiner maintains three prior art rejections:

4. Claims 1, 3-8, 11-13 and 19-22 stand rejected under 35 U.S.C. § 103 as being unpatentable over Okinoshima, U.S. Patent 5,041,513 (1991).

5. Claims 9-10 stand rejected under 35 U.S.C. § 103 over Okinoshima and European Patent Application (EPA) 0 538 075 A1 (published 21 April 1993).

6. Claim 2 stands rejected as being unpatentable under 35 U.S.C. § 103 over Okinoshima and Nakashima, U.S. Patent 5,262,505 (1993).

7. The record is somewhat unclear as to the status of remaining claims 14-18, although some of these claims are mentioned in passing in the Examiner's Answer. We assume that claims 14-18 have also been rejected under 35 U.S.C. § 103 based one way or another on Okinoshima.

8. At one time these claims, along with other claims, were rejected as being unpatentable under 35 U.S.C. § 103 over prior art, including EPA. See page 1 of the Final Rejection (Paper 5), where it is indicated that claims 1-22 are rejected.

Okinoshima

9. Okinoshima describes polyamic solutions containing

- (I) an organic solvent and
- (II) a polyamic acid made by reacting:

- (A) a tetracarboxylic acid dianhydride containing at least 10 mole % of 2,2-bis(3,4-benzenedicarboxylic anhydride)perfluoropropane [**6FDA**] and
- (B) a mixture of amines made up of:
 - (1) a siloxane-containing diamine and
 - (2) an ether diamine.

10. The examiner seems to regard Okinoshima Example 8 as highly pertinent. Example 8 is as follows:

Example 8

The procedure of Example 1 was repeated except that 4.4 grams (0.01 mol) of 2,2-bis(3,4-benzenedicarboxylic anhydride)perfluoropropane [**6FDA**²] and 26.5 grams (0.09 mol) of 3,3',4,4'-biphenyltetracarboxylic dianhydride [**BPDA**³] were used as the tetracarboxylic dianhydride component and 1.2 grams (0.005 mol) of bis(3-aminopropyl)tetramethyl-disiloxane and 39.0 grams (0.095 mol) of 2,2-bis[4-(4-aminophenoxy)-phenyl]propane [**BAPP**⁴] were used as the diamine component. There was obtained 68.0 grams of a polyimide resin.

² A dianhydride which does not fall within the scope of clause (II)(A) of applicants' claim 1.

³ A dianhydride within the scope of clause (II)(A) of applicants' claim 1.

⁴ The amine of clause (II)(B)(2)(a) of applicants' claim 1.

This polyimide resin was soluble in any organic ether and ketone solvents.

A 10% cyclohexanone solution of the polyimide resin was prepared. As described in Example 1, this resin solution composition was applied to various substrates and heated at 150°C. for one hour, obtaining a satisfactory coating having a smooth surface and improved adherence to each substrate.

11. The Okinoshima polyamic acid must include a 6FDA component.

B. Discussion

Applicants maintain, and the examiner denies, that the preamble "consisting essentially" language of applicants' claim 1 excludes the presence of 6FDA from applicants' claimed solution. According to applicants, denied by the examiner, the presence of 6FDA materially affects the properties of applicants' claimed solutions. We also are told, without as much as one scintilla of supporting evidence in the record, that (Appeal Brief, paragraph bridging pages 5-6):

[Applicants] *** have used 6FDA to prepare polyimidesiloxanes (using diamines outside the scope of this invention) and have learned that 6FDA reduces the bond strength. [Applicants] ***

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therefore expect that a polyimidesiloxane made from 6FDA and the diamines required in their claims would not have sufficient bond strength to function as an adhesive.

Applicants go on to make an unusual representation as follows on page 6 of the Appeal Brief:

For the record, and for the purpose of creating a file wrapper estoppel, *** [applicants] will state that a polyimidesiloxane made from an anhydride component that is at least 10 mole % 6FDA (and the remainder BPDA) is outside the scope of their claims.

Applicants cannot narrow a claim during prosecution before the Patent and Trademark Office by explicitly creating a file wrapper estoppel in a brief on appeal. The proper manner to narrow a claim during prosecution is to amend the claims.

Applicants cannot rely on experimental work without presenting evidence of the experimental work. A discussion in a brief on appeal of experimental work alleged to have taken place is mere argument of counsel which all concerned should

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know is not evidence. Estee Lauder, Inc. v. L'Oreal, S.A.,
129 F.3d 588, 592, 44 USPQ2d 1610, 1615 (Fed. Cir. 1997).

At this point, we feel comfortable in saying that both the applicants and the examiner have missed the mark. Neither applicants nor the examiner have properly determined the scope of claim 1. But, claim scope determination is an essential first step in resolving patentability. One cannot evaluate the applicability of prior art to a claim without first determining the scope of the claim!

The Federal Circuit said it best when it gave the following sage advice: "The invention disclosed in *** [the] written description may be outstanding in its field, but the name of the game is the claim." In re Hiniker Co., 150 F.3d 1362, 1369, 47 USPQ2d 1523, 1529 (Fed. Cir. 1998). Moreover, the Federal Circuit has provided meaningful guidance on how a claim such as applicants' claim 1 should be construed. In Mannesmann Demag Corp. v. Engineered Metal Products Co., Inc., 793 F.2d 1279, 1281, 230 USPQ 45, 46 (Fed. Cir. 1986), the following claim was before the court (material in bold added):

A vessel for a metal smelting furnace **having**^[5] a smelting zone including a heat-resistant interior wall, and cooling means for protecting the interior of said vessel, characterized by

(a) at least a portion of the interior wall of said vessel above the smelting zone **consisting of** at least one cooling pipe coil;

(b) said coil including fluid passage-forming sections;

(c) said cooling pipe coil being exposed to the center of the vessel, and

(d) neighboring sections of said coil being arranged in a contacting relation.

The Federal Circuit, commenting on the district court's construction of the claim, notes (*id.* at 1282, 230 USPQ at 46):

The district court correctly observed that the phrase "consisting of" appears in clause (a), not the preamble of the claim, and thus limits only the element set forth in clause (a). The [district] court correctly declined to read this usage of "consisting of" as excluding all other elements from the claim as a whole.

⁵ "Having" in the context of the Mannesmann claim means "comprising".

Another relevant case is Berenter v. Quigg, 737 F.Supp. 5, 14 USPQ2d 1175 (D.D.C. 1988), involving a civil action under 35 U.S.C. § 145 seeking judicial review of a decision of this board. The following claim was before the district court [matter in brackets, indentation and bold added]:

A method for treating an infestation of cockroaches selected from the species ***, said species being characterized in that a first habitat of these species during early development and reproduction is different from a second habitat *** during a post-migratory stage, to substantially eliminate said infestation and prevent its spread to beyond the locus thereof which **comprises**

- [1] identifying said first habitat, and
- [2] applying lethally effective amount of pesticide to an area **consisting of** said first habitat, whereby to exterminate any cockroaches of said species present in said area and substantially prevent further reproduction thereof.

Berenter maintained that his claim limited the habitat to which the pesticide is applied to the first habitat; the board had held that "comprises" opened the claim to other steps, including a step of applying a pesticide to the second habitat. The district court, citing Mannesmann, agreed with

Berenter and determined that the scope of the claim precluded application of a pesticide to the second habitat. As noted by the district court, "[a]n additional step that allows the use of the pesticide in an area other than the first habitat is inconsistent with *** [Berenter's] claim."

Mannesmann's claim and Berenter's claim are similar to the applicants' claim 1 in that all contain "consisting of" in one clause of the claim and not in the preamble. The term "consisting of", when used in a claim, is a term of art in patent law. It closes the claim, or the clause of the claim in which it appears, to the inclusion of materials other than those recited except for impurities ordinarily associated therewith. Ex parte Davis, 80 USPQ 448, 450 (Bd. App. 1949). The "consisting of" in clause (II)(A) of applicants' claim 1 limits the dianhydrides used to make applicants' polyamic acid to the Markush⁶ group of:

[1] 3,3',4,4'-biphenyltetracarboxylic dianhydride
[BPDA],

⁶ Ex parte Markush, 1925 Dec. Comm'r Pat. 126, 127 (Comm'r Pat. 1924) ("material selected from the group consisting of aniline, homologues of aniline and halogen substitutes of aniline").

- [2] bis(3,4-dicarboxyphenyl)ether dianhydride
[ODPA], and
- [3] mixtures thereof.

Excluded from the dianhydrides of clause (II)(A) of applicants' claim 1--as well as the rest of the claim--are other dianhydrides, including 6FDA,⁷ an essential and necessary dianhydride in the Okinoshima polyamic acid.

On this record, we can perceive of no reason why a person having ordinary skill in the art would eliminate 6FDA from the polyamic acid solution described by Okinoshima. Thus, this is not a case where it would have been obvious to eliminate an element along with its function. Compare In re Karlson, 311 F.2d 581, 136 USPQ 184, 186 (CCPA 1963) and In re Wright, 343 F.2d 761, 145 USPQ 182, 190 (CCPA 1965). It follows that the decision of the examiner rejecting claims based on Okinoshima is not legally sufficient.

C. Other issues

⁷ There is no evidence in the record which would establish that 6FDA is an ordinary impurity in BPDA, particularly when 6FDA makes up 10% of a mixture of 6FDA and BPDA and 6FDA is purposely used to make the mixture.

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We recognize that the examiner withdrew a rejection based on EPA, believing Okinoshima to be closer. In light of our findings and conclusion, the examiner may wish to reevaluate whether EPA is in fact a closer reference. Nothing in this opinion should be construed as precluding the examiner from entering a rejection of claims based on EPA.

D. Order

Upon consideration of the record, and for the reasons given, it is

ORDERED that the examiner's rejections based on Okinoshima are reversed.

REVERSED.

_____ SHERMAN D. WINTERS)	
Administrative Patent Judge)	
)	
)	
_____ FRED E. McKELVEY, Senior)	BOARD OF PATENT
Administrative Patent Judge)	APPEALS AND
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